**ACS MAINTENANCE ENGINEERING**

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# AEDC PROTECTIVE COATINGS AND CORROSION CONTROL PLAN

## CCP-100
## Rev. 1 (1991)
## Rev. 2 (1993)
## Rev. 3 (1995)
## Rev.4 (1997)
## Rev. 5 (1999)

ACS
ARNOLD ENGINEERING DEVELOPMENT CENTER
ARNOLD AIR FORCE BASE, TN 37389-1500

# AEDC
# PROTECTIVE COATINGS AND CORROSION CONTROL PLAN

## CCP-100
## Revision 5
## 1999

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## ACS
## ARNOLD AIR FORCE BASE, TN 37389-1500

# FOREWORD

The Protective Coatings and Corrosion Control Plan provides a uniform approach to establishing, maintaining, and directing a corrosion prevention and control plan for AEDC, according to accepted military and industry standards and specifications.

The procedures specified in this plan are for inter- and intra-facility/department corrosion prevention and control activities. They are to be consistently and uniformly applied by all organizations and personnel involved in designing, procuring, managing, directing, maintaining, or operating AEDC structures, equipment, plants, and systems. This document is intended as a guide for design, operational, maintenance, and administrative personnel and, if utilized to the maximum, will ensure compliance with contractual requirements.

The coating systems contained in this plan are designed to meet or exceed all OSHA, environmental health and industrial hygiene regulations and standards.

The systems are chosen based on operational issues associated with the particular application and environmental considerations. When possible, water-based coating systems are chosen above solvent based systems. When operational issues demand a solvent based coating system, a high solids system is used.

All volatile organic compounds (VOCS) and heavy metal restrictions are in compliance with AEDC Standard E 19 and the Air Force Technical Letter ETL 87-2. Exceptions to the VOC limits are in coating systems requiring high temperature and immersion service applications.

Ozone depletion substances (ODS) are being reduced through product restrictions and technological advances in resin chemistry by paint manufacturers.

Other decisions such as type of spray equipment and material minimization are also made with pollution prevention in mind. High performance spray equipment is used wherever possible and materials are minimized by recycling cleaning solvent, mixing quantities required for the job tasks.

This plan is revised when individual systems are added or upgraded. Major revisions are scheduled every two years.

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# PROTECTIVE COATINGS AND CORROSION CONTROL PLAN

## I. Purpose

This plan establishes corrosion control responsibilities, policies, and procedures for ACS at Arnold Engineering Development Center (AEDC). It provides programs for corrosion prevention by painting. These programs, when used to the maximum, provide a high degree of operational dependability; extend the life of structures, equipment, and systems; conserve resources; and reduce costs.

## II. Scope

Corrosion control minimizes the effects of electrochemical or chemical attack on materials by the environment through:

1. Selecting suitable materials.

2. Incorporating corrosion control features in design.

3. Controlling corrosive action during construction activities.

4. Controlling and improving the environment.

5. Using new technology protective coatings to reduce atmospheric damage.

## III. Policy and Overall Goals

ACS provides a corrosion control section within the Support Facilities Services Group. This sectopm is responsible for technical guidance on all corrosion control activities for design, industrial test support facilities, real property, and maintenance at AEDC. In addition, this section accomplishes the following:

1. Provide design review of new facility site plan drawings, associated engineering drawings, and specifications for adequacy of corrosion control, and sign appropriate drawings.

2. Provide a corrosion control recurring maintenance painting program providing a uniform approach to establishing, maintaining, and directing a corrosion prevention and control program that complies with AFR 91-27, Corrosion Control Program.

3. Provide assistance to the United States Air Force in preparation of design and specifications for corrosion control painting contracts performed by outside contractors at AEDC.

4. Develop a close relationship with base operating contractors to plan and implement corrosion control efforts to maintain mission capability at AEDC.

5. Provide technical support to the facility area supervisors and other base contractor personnel to ensure maximum effectiveness of the Protective Coatings and Corrosion Control Plan.

6. Monitor and direct this plan.

## IV. References

1. Munger, Charles G., Corrosion Prevention by Protective Coatings

2. National Association of Corrosion Control Engineers (NACE) Publications

3. Steel Structures Painting Council (SSPC) Manuals, Volumes I and II

4. AEDC Safety Standard D3, Identification of Piping Systems

5. AEDC Safety Standard E19, Lead and Heavy Metal Abatement Procedures, 1994

6. Air Force Engineering Technical Letter (ETL) 87-2, Volatile Organic Compounds Limit Standards

## V. Lead and Heavy Metal Management Program

This program establishes requirements and responsibilities for the AEDC Lead and Heavy Metal Management and Operations Program. The program is designed to protect the workforce and the environment from the hazards associated with exposure to lead and other heavy metals.

The presence of lead and heavy metals does not necessarily constitute a health or environmental threat. However, to prevent the exposure to the hazards associated with lead and heavy metals, the workforce must be aware of their dangers and locations of these materials.

Due to the extensive use of lead in coating materials such as paint and mastics, unless the coatings have been sampled, it is to be assumed that the material contains lead or other hazardous metals.

A lead-compliance program is required by 29 CFR 1926.62 (OSHA Lead Standard for Construction). Refer to AEDC Safety Standard E 19, Lead and Heavy Metal Abatement Procedures, 1998.

## III. Special Problems

Maintenance Engineering provides assistance base-wide to resolve corrosion control technical problems.

Special corrosion control technical problems that cannot be resolved in-house are referred to AFESC, Tyndall Air Force Base, for technical assistance through Air Force channels.

# CORROSION PREVENTION BY PAINTING

## Program Description

Real property test structures, associated ducting and piping equipment, and buildings are painted by the in-house work force according to the Corrosion Control Program, which is submitted annually for Air Force approval. When the scope of the task is beyond in-house capability, the corrosion control section prepares specifications which are submitted to the Air Force for approval and release to outside contractors. The corrosion control group monitors the progress of these contracts to assure compliance with specifications.

## Use of Paint Systems

Copies of the paint systems are distributed to personnel responsible for executing the Corrosion Control Plan in order to maintain uniform control of the program. These include the manager, supervisors, and paint foremen, who assign and supervise the work in the field. Deviation from the recommended systems is not permitted without prior approval from Maintenance Engineering.

Copies of the systems are also furnished to ACS Design Engineering, Contractor T and design groups and facility shop personnel, enabling all maintenance and construction elements to specify suitable paint systems.

## Vehicles

Equipment that is on a regular service schedule listed with the Transportation Branch is inspected for corrosion control during regular service. The Transportation Maintenance supervisor is responsible for corrective treatment, with support and advice from Maintenance Engineering.

## Corrosion Control of Small Equipment

This program has been initiated to assure that small equipment is covered in the Protective Coatings and Corrosion Control Plan. The plan provides for the regular inspection of small equipment subject to corrosion damage. Corrosion control inspections, when feasible, will be scheduled to coincide with regular preventive maintenance performed on equipment. This will eliminate duplication of effort and provide broad coverage and rapid implementation of the plan.

## General

The process for performing inspections and providing work requests for in-house and project level work is initiated and completed within the Synergen Computerized Maintenance Management System (CMMS).

# PROPOSED
# CORROSION CONTROL COMMITTEE

## Organization

The Corrosion Control Committee chaired by ACS personnel will function as the focal point for coordination of this plan.

The committee will be composed of cognizant individuals representing the contract operators of AEDC. Members are responsible for coordination of corrosion control activities and inspections in their areas and are selected by their company's management.

Committee actions assure that corrosion prevention, protection, and maintenance at AEDC are conducted within prescribed procedures and the current state of the art.

Meetings will be on an informal schedule and will be called when required.

Generally, questions or problems can be discussed via telephone, and remedial measures will be accomplished with a minimum of delay.

# ENVIRONMENTAL ANALYSIS

Deterioration can vary by degree. Some unit of measure for this process has been established. All areas of AEDC will fall into one or more of the following classifications for degree of severity.

**Environmental Classifications**

A TYPE A - HEAVY-DUTY, AGGRESSIVELY CORROSIVE

Immersion, excessive exposure to chemicals

This exposure occurs in an area characterized by aggressive chemical fumes, mists, dusts, or other chemical contaminants that combine with high humidity and condensed moisture to corrode zinc at rates greater than one mil per year. The need to limit air pollution and protect personnel generally confines chemical concentrations of such an aggressive nature to within a radius of about 50 yards from the source of contamination. Type A environments require the most effective (therefore, the most expensive) surface preparation - white metal blast SSPC-SP 5; NACE No. 1 or near white SP 10, NACE No. 2 - and greater film build for satisfactory results.

B TYPE C - HEAVY-DUTY, CORROSIVE

Frequent splash, spillage, and corrosive fumes

This exposure is less destructive than Type A exposure and is characterized by moderately aggressive chemical fumes, mists, or dusts that combine with moisture and high humidity to corrode carbon steel at rates from three to six mils per year and to corrode zinc at rates less than one mil per year. Type A exposures, in many cases, may become Type C exposures outside a radius of about 50 yards from the source of contamination. Type C environments require near white sandblasting SSPC-SP 10, NACE No. 2 or commercial sandblast SSPC-SP 6, NACE No. 3 and heavy-duty chemical-resistant coatings.

C TYPE M - MODERATE

Normal industrial atmosphere, weathering, exterior

This exposure is generally found outdoors and is characterized by normal weathering and/or light and moderate concentrations of chemical fumes that combine with humidity and condensed moisture to corrode carbon steel at rates

less than three mils per year. Zinc in this exposure is virtually free of corrosion. Light to moderate chemical fume concentrations in indoor areas without excessive humidity may produce similar conditions. Far less critical than A or C, surface preparation can range from commercial blast SSPC-SP6, NACE no. 3 to brush-off blast SSPC-SP7, power tool clean SSPC-SP3 and SSPC-SP11, or hand tool clean SSPC-SP2, depending on conditions.

D TYPE P - PROTECTED ARCHITECTURAL

Normal industrial interior

In this category, surfaces are generally indoor in the normal humidity range and are not subjected to chemical contaminants that will attack paint or steel. Surface preparation is, therefore, less demanding.

The more corrosive the environment, the more the need for better surface preparation and heavy-duty chemical-resistant coatings with greater film thickness. This is contrasted to the protected environments where the primary concerns are appearance and decoration.

Most of the AEDC facility will fall into one or more of the above environmental classifications. In general, 80 percent of the total area will fall into classes M and P.

## SURFACE PREPARATION PROCEDURES
## FOR THE FOLLOWING SURFACES

- **Drywall**

  Ensure the surface is clean and dry. Set and spackle all nail heads. Tape joints and cover with joint compound. Sand spackled nail heads and tape joints smooth, and remove all dust with a hand-held electric vacuum cleaner prior to painting.

- **Plaster**

  Allow plaster to dry thoroughly, for at least 30 days, before painting. Ventilate the room while drying; heat the room in cold, damp weather. Repair damaged areas with patching paste. Ensure bare plaster (new or old) is dried, cured, and hard.

- **Previously coated surfaces (other than carbon steel)**

  Remove all surface contamination, such as oil, grease, loose paint, dirt, foreign materials, mold, mildew, loose mortar, efflorescence, and sealers, to ensure sound bonding to tightly adhering old paint. Before repainting, ensure glossy surfaces of old paint films are clean and dull. Wash surfaces thoroughly with an abrasive cleaner to clean and dull at the same time, or wash thoroughly and sand to dull. Remove sanding dust. Spot prime all bare areas with the appropriate primer. Inspect the surface to ensure it is clean and sound. Check the old paint surface for compatibility with the new coating by applying a test patch of 2-3 square feet. Allow to dry thoroughly. Inspect for lifting, checking, and adhesion.

- **Wood - interior**

  Store all finishing lumber and flooring in dry, warm rooms to prevent absorption of moisture, shrinkage, and damage. Sand all surfaces with the grain. Repair all surface blemishes and clean all surfaces of dust before applying the first primer coat. Between coats, lightly sand enamel and varnish finishes until dull.

- **Concrete block (interior)**

  Remove all surface contamination, loose excess mortar, and foreign materials. Use a wire brush to remove efflorescence. Treat surface with one coat of masonry conditioner.

- **Brick (interior)**

  Ensure surface is free of dirt, loose excess mortar, and foreign materials. Use a wire brush to remove all loose material and efflorescence. Treat surface with one coat of masonry conditioner.

## APPENDIX I

## PAINT SYSTEMS

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| | |
|---|---|
| 12C | (CS) Heavy-Duty, Irregular Surfaces, High Temperature, 850°F Special Application – Flame Control |
| 12D | (CS) Heavy-Duty, Irregular Surfaces, Temperatures Do Not Exceed 320°F |
| 13 | (CS) Moderate Service, Interior, Severe Restrictions or Inaccessible Areas |
| 14 | New Concrete and Concrete Block, Moderate Service, Exterior and Interior |
| 14A | Concrete Floor Repair and Coating Corrosive Environment |
| 14B | Contaminated Concrete Floor Coating, Oil & Grease Contaminated |
| 15 | Old Concrete Block, Normal Service, Exterior and Interior |
| 15A | Gypsum Board |
| 16 | New Wooden Construction, Moderate Service, Exterior Plywood and Southern Pine |
| 17 | Old Wooden Structures, Moderate Service, Exterior, Previously Painted |
| 18 | (CS) Plant Operating Equipment, Moderate Service, Exterior |
| 19 | (CS) Plant Operating Equipment, Moderate Service, Interior Temperature May Reach 400°F |
| 20 | (CS) Plant Operating Equipment, New Installation Interior |
| 21 | Aluminum, Moderate Service, Interior and Exterior |
| 22 | (CS) Tanks, Moderate Humidity and Chemical Fumes, Exterior Surface |
| 22A | (CS) Tanks, Contents, Trichloroethylene, Interior Surfaces |
| 22B | (CS) Tanks, Contents, Aliphatic Solvents (Fuels), Interior Surfaces |

| **System No.** | **Description** |
|---|---|

| | |
|---|---|
| 22C | (CS) Tanks, Contents, Potable and Raw Water, Interior Surfaces |
| 23 | (CS) Shop Machinery, Normal Industrial Atmosphere, Interior |
| 24 | (CS) Steel Stock Storage, Moderate Service, Outside Storage |
| 25 | (CS) Test Cell Interiors, High Temperature 300°F |
| 25A | (CS) Test Cell Interiors, Heavy-Duty Service, Temperatures Up to 700°F |
| 25B | (CS) Test Cell Interiors, Moderate Service, Interior, Temperatures Up to 300°F, Sandblasting Allowed |
| 26 | (CS) Buried Pipe, Couplings and Fittings with Tape-Coated Primer |
| 27 | Concrete Jet Fuel Containment Structures Epoxy System |
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| 29 | Non-Slip Floor Coatings |
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## SYSTEM #1A MODIFIED

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." EXTERIOR, HIGH TEMPERATURE 750°+F.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED IRON SURFACES FOR HEAVY-DUTY SERVICE. AGGREGATE BLASTING REQUIRED.* TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 10-84: NEAR WHITE METAL BLAST. SIZE BLASTING AGGREGATE TO ACHIEVE A 2.0-3.0-MIL SURFACE PROFILE PATTERN. USE WITH AEDC PROCEDURE NO. 6 (E 19).

   PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS.

b. Painting**

| | |
|---|---|
| FIRST COAT: | ZINC, CLAD II ETHYL SILICATE<br>INORGANIC ZINC RICH COATING<br>B69V3 BINDER PART E<br>B69DII ZINC DUST PART F<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 MILS |
| APPLICATION: | SPRAY** |

*NOTE: APPLICATION WILL BE IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDED PRACTICES AS STATED ON SHERWIN-WILLIAMS PRODUCT DATA SHEET A-23 DATED JULY 1993.

**THE COLOR OF THIS COATING IS GRAY/GREEN AND SHOULD NOT BE USED IN LOCATIONS WHERE AESTHETICS ARE IMPORTANT.

PRODUCT IS EXCELLENT FOR USE ON STEAM LINES UNDER INSULATION.

## SYSTEM #1A

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE C." HEAVY-DUTY SERVICE, IRREGULAR SURFACES.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED IRON SURFACES FOR HEAVY-DUTY SERVICE. AGGREGATE BLASTING REQUIRED.* TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE RP-5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 5-84: WHITE METAL BLAST. SIZE BLASTING AGGREGATE TO ACHIEVE A 2.0-3.0-MIL SURFACE PROFILE PATTERN. USE WITH AEDC PROCEDURE NO. 6 (E 19).

   PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS.

b. Painting

| | |
|---|---|
| PRIMER | ZINC CLAD II ETHYL SILICATE<br>INORGANIC ZINC RICH COATING<br>B69V3 BINDER PART E<br>B69DII ZINC DUST PART F<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 – 5.0 MILS DFT |
| APPLICATION: | SPRAY |
| FINISH COAT: | WATER BASED EPOXY ENAMEL<br>GLOSS HARDENER B60V15<br>SEMI-GLOSS HARDENER B60V25 |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 – 5.0 MILS 1 COAT |
| APPLICATION: | SPRAY |

*NOTE: DESIGN CRITERIA SHOULD ADDRESS THE TOTAL COATING OF ALL SURFACES OF STRUCTURE BEFORE INSTALLATION.

**CONTINUE ON REVERSE**

THERE SHALL BE NO SURFACE EXPOSED TO CONTACT WITH THE ELECTROLYTE WHICH CANNOT BE PROPERLY PREPARED AND COATED.

IF SUCH CONDITIONS DO OCCUR, THEN PLEASE CONSULT WITH, PRIOR TO INSTALLATION, THE CORROSION CONTROL REPRESENTATIVE: D. R. BASSI, EXT. 7705.

## SYSTEM #1

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE A." IMMERSION SERVICE, IRREGULAR SURFACES.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED IRON SURFACES FOR TOTAL IMMERSION SERVICE. AGGREGATE BLASTING REQUIRED.* TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 10-84: NEAR WHITE METAL BLAST. SIZE BLASTING AGGREGATE TO ACHIEVE A 2.0-3.0-MIL SURFACE PROFILE PATTERN. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| FIRST COAT: | HI-MIL SHER-TAR EPOXY<br>B69B40 BLACK PART A<br>B60V40 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | 2 FULL COAT |
| DFT: | 10.0 MILS/COAT. TOTAL 20.0 MILS |
| APPLICATION: | SPRAY |
| COLOR: | BLACK |

*NOTE: DESIGN CRITERIA SHOULD ADDRESS THE TOTAL COATING OF ALL SURFACES OF STRUCTURE BEFORE INSTALLATION.

THERE SHALL BE NO SURFACE EXPOSED TO CONTACT WITH THE ELECTROLYTE WHICH CANNOT BE PROPERLY PREPARED AND COATED.

IF SUCH CONDITIONS DO OCCUR, THEN PLEASE CONSULT WITH, PRIOR TO INSTALLATION, THE CORROSION CONTROL REPRESENTATIVE: D. R. BASSI, EXT. 7705.

## SYSTEM #2

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE HUMIDITY AND CHEMICAL FUMES.

SCOPE: TOTAL COATING OF PREVIOUSLY UNPAINTED OR DETERIORATING PAINTED SURFACES. AGGREGATE BLASTING IS PERMITTED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE #1:

| | |
|---|---|
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES – B66-100 GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

c. For cold weather applications see System No. 28.

ALTERNATE #2:

| | |
|---|---|
| FINISH COAT | HI-SOLIDS POLYURETHANE ENAMEL<br>SERIES B65-300 PART S<br>B60V30 HARDNER PART T<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 – 4.0 MILS/COAT |
| COLOR: | PURE WHITE OR COLORS |
| APPLICATION: | SPRAY |

## SYSTEM #3

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE ATMOSPHERIC CONDITIONS.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED, UNPAINTED, OR NEW INSTALLATIONS.* AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. FIRST COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE #1:

| | |
|---|---|
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-100 GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

ALTERNATE #2:

| | |
|---|---|
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-100 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 1.5-2.0 MILS/COAT. 7.0-8.0 MILS TOTAL. |
| APPLICATION: | SPRAY |

*SPECIAL NOTE: ALL WELDS, WELD SPLATTERS, CUTTING SCARS, SHARP POINTS, AND EDGES SHALL BE GROUND SMOOTH. PROVIDE A SMOOTH, CLEAN, SOUND SURFACE AFTER INSTALLATION IS COMPLETED. COATING APPLICATION OF THESE SURFACES SHALL COMPLY WITH THE ABOVE SYSTEMS.

## SYSTEM #4

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE ATMOSPHERIC CONDITIONS.

SCOPE: TOTAL COATING OF PREVIOUSLY UNPAINTED OR BADLY DETERIORATED IRON SURFACES. AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE RP-01-72: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. PRIMER MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT: | GLOSS<br>INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-100 GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLL |

**CONTINUE ON REVERSE**

ALTERNATE #1

| | |
|---|---|
| FINISH COAT: | SEMI-GLOSS<br>INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

NOTE: FOR COLD WEATHER APPLICATION SEE PAINT SYSTEM #28.

## SYSTEM #5

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE SERVICE, EXTERIOR AND INTERIOR.

SCOPE: FULL COATING OF PREVIOUSLY UNPAINTED OR BADLY DETERIORATED IRON SURFACES. AGGREGATE BLASTING NOT ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN; REMOVE ALL LOOSE PAINT, RUST, DIRT, AND FOREIGN MATERIAL TO SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

3. SSPC SP 11-87T: POWER TOOL CLEAN TO BARE METAL. REPLACES SANDBLASTING WHEN SANDBLASTING IS RESTRICTED. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting

FIRST COAT:

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARNDER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR SPRAY |

ALTERNATE #1:

| | |
|---|---|
| FINISH COAT: | GLOSS<br>INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-100 GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |

**CONTINUE ON REVERSE**

| | |
|---|---|
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE #2:

| | |
|---|---|
| FINISH COAT: | SEMI-GLOSS<br>INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE #3:

| | |
|---|---|
| PRIMER/FINISH COAT: | EPOXY MASTIC COATING<br>B58W101 PURE WHITE PART W<br>B58V1 HARDNER PART X<br>SHERWIN-WILLIAMS |
| COATS: | ONE FULL COAT |
| DFT: | 6.0-10.0 MILS |
| APPLICATION: | SPRAY |

**OR**

| | |
|---|---|
| PRIMER/FINISH COAT: | EPOXY MASTIC ALUMINUM II<br>B62S100 ALUMINUM PART A<br>B60V11 HARDENER PART B<br>COLOR: ALUMINUM<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE COAT |
| DFT: | 4.0-6.0 MILS TOTAL |
| APPLICATION: | SPRAY |

*NOTE: DO NOT USE ON ROOFS

## SYSTEM #5A

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE ATMOSPHERIC CONDITIONS.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED, UNPAINTED, OR NEW INSTALLATIONS.* AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. FIRST COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

ALTERNATE #1:

| | |
|---|---|
| PRIMER/FINISH COAT | EPOXY MASTIC COATING<br>B58W101 PURE WHITE PART W<br>B58T1OR ULTRA DEEP PART W<br>B58V1 HARDNER PART X<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 6.0-10.0 MILS |
| APPLICATION: | SPRAY |

ALTERNATE #2:

| | |
|---|---|
| PRIMER FINISH COAT | EPOXY MASTIC ALUMINUM I<br>B62S100 ALUMINUM PART A<br>B60V100 HARDENER PART B<br>SHERWIN-WILLIAMS OR EQUAL |

**CONTINUE ON REVERSE**

| | |
|---|---|
| COATS: | ONE FULL COAT |
| DFT: | 4.0-6.0 MILS |
| APPLICATION: | SPRAY |

*SPECIAL NOTE: THESE ALUMINUM MASTIC COATINGS ARE VERY GOOD FINISH COATS. COLOR IS ALUMINUM AND SHOULD BE TOP COATED ONLY IF COLOR CHANGE IS REQUIRED. DO NOT USE ALKYD ENAMEL TOP COATS.

*IF AGGREGATE BLASTING IS NOT ALLOWED, USE SSPC SP 11-87T, POWER TOOL CLEAN TO BARE METAL. USE WITH AEDC PROCEDURE NO. 10 (E 19).

*SPECIAL NOTE: ALL WELDS, WELD SPLATTER, CUTTING SCARS, SHARP POINTS, AND EDGES SHALL BE GROUND SMOOTH. PROVIDE A SMOOTH, CLEAN, SOUND SURFACE AFTER INSTALLATION IS COMPLETED. COATING APPLICATION OF THESE SURFACES SHALL COMPLY WITH THE ABOVE SYSTEMS.

## SYSTEM #6

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE SERVICE, EXTERIOR.

SCOPE: TOTAL COATING OF UNCOATED OR BADLY DETERIORATED OPEN GRATING, DECK PLATING, AND STRUCTURAL STEEL MEMBERS WHERE WATER IMPOUNDMENT IS OCCURRING. IF AGGREGATE BLASTING IS NOT ALLOWED, SEE PAINT SYSTEM NO. 5, ALTERNATE #3. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. MECHANICALLY EFFECT NECESSARY PROCEDURES TO ENSURE PROPERLY DRAINED SURFACES. (DRILL A HOLE.)

2. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

# SYSTEM #7

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." NORMAL SERVICE, EXTERIOR AND INTERIOR.

SCOPE: FULL COAT ALL PREVIOUSLY UNPAINTED OR BADLY DETERIORATED STEAM AND CONDENSATE LINES, VALVES, TRAPS, UNIONS, FLANGES, AND MISCELLANEOUS SURFACES. MAXIMUM TEMPERATURE DOES NOT EXCEED 750°F. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2A. SSPC SP 11-87T: POWER TOOL CLEAN TO BARE METAL; REMOVAL ALL LOOSE PAINT, RUST, AND FOREIGN MATERIAL TO BARE METAL WHEN SANDBLASTING IS NOT PERMITTED. USE WITH AEDC PROCEDURE NO. 5 (E 19).

2B. SSPC SP 6-84: WHERE ALLOWABLE, COMMERCIAL BLAST TO BARE METAL. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL SURFACE PROFILE PATTERN. PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER/FINISH COAT: | ZINC CLAD II ETHYL SILICATE<br>INORGANIC ZINC-RICH COATING<br>B69V BINDER PART E<br>B69D11 ALUMINUM DUST PART F<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0-5.0 MILS |
| APPLICATION: | SPRAY |

*NOTE: IT IS VERY LIKELY THAT ANY HIGH TERMPERATURE COATING APPLIED TO A SURFACE THAT HAS NOT BEEN BLASTED TO A MINIMUM SP-6, COMMERCIAL BLASTED SURFACE WILL FAIL WITHIN ONE YEAR OF SERVICE.

## SYSTEM #8

MATERIAL: GALVANIZED IRON

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: TOTAL COATING OF NEW, UNPAINTED GALVANIZED IRON SURFACES WITH LESS THAN SIX (6) MONTHS WEATHER EXPOSURE. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. REMOVE ALL TRACES OF GALVANIZING OIL, GREASE, AND FOREIGN MATERIALS. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | GALVITE HS<br>B50 WZ 30<br>SHERWIN WILLIAMS OR EQUAL |
| COAT: | ONE FULL COAT |
| DFT: | 3.0-4.5 MILS |
| APPLICATION | SPRAY<br>BRUSH OR ROLLER MAY REQUIRE MULTIPLE COATS TO ACHIEVE MAXIMUM FILM THICKNESS |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE #1:

| | |
|---|---|
| PRIMER AND FINISH COATS:<br>SPOT PRIME RUSTED AREAS | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | 2 FULL COAT |
| DFT: | 3.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

## SYSTEM #9

MATERIAL: GALVANIZED IRON

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: TOTAL COATING OF UNPAINTED GALVANIZED IRON WITH ISOLATED SPOTS OF RUST AND SIX MONTHS OR MORE WEATHER EXPOSURE. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN RUSTED AREAS TO REMOVE LOOSE RUST. REMOVE ALL WHITE POWDER, ZINC OXIDE, AS WELL. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting

| | |
|---|---|
| PRIMER:<br>SPOT COAT RUSTED AREAS ONLY. | GALVITE H5 METAL PRIMER<br>B50WZ30<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS:<br>DFT:<br>APPLICATION: | FULL SPOT COAT RUSTED AREAS.<br>3.0-4.5 MILS TOTAL<br>BRUSH |
| FINISH COAT*: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS:<br>DFT:<br>APPLICATION: | TWO FULL COATS<br>2.5-4.0 MILS/COAT<br>SPRAY, BRUSH OR ROLLER |

## SYSTEM #10A

MATERIAL: GALVANIZED METAL ROOFS

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: CLEANING, REPAIR, AND COATING OF UNPAINTED, RUSTING, GALVANIZED METAL ROOFS. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN RUSTED OR CONTAMINATED AREAS TO REMOVE LOOSE MATERIALS FROM FLAT SURFACES AND SEAMS. MAKE SURE ALL ZINC OXIDE (WHITE POWDER) AND LOOSE RUST HAVE BEEN REMOVED. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Seam and Penetration Repair

1. ROOF REPAIR CRITERIA ARE BASED ON THE INDUSTRIAL ROOF REPAIR AND MAINTENANCE SYSTEM AND MATERIALS DEVELOPED FOR INDUSTRY BY THE PIONEER COMPANY.

2. PRODUCTS AND PROCEDURES FOR SEALING SEAMS AND COATING METAL ROOFS SHOULD BE FOLLOWED IN ACCORDANCE WITH THE PC-46 AND SP-46 KITS AS IS APPROPRIATE. SEE ATTACHED, PAGES 8 AND 9.

   ROOF PENETRATION REPAIR PROCEDURES SHOULD BE ACCOMPLISHED ACCORDING TO RANDUSTRIAL PATCHING CEMENTS, MATERIALS AND METHODS DESCRIBED IN R-36, R-37, OR R-45. SEE ATTACHED, PAGE 9.

3. PAINT ALL ROOFS WHITE FOR THERMAL CONTROL.

FOR INFORMATION AND CONSULTATION, CONTACT BARRY BANKS, EXT. 7785, OR TOM IBRAHIM, EXT 3748, MS1500, CEAF BUILDING NO. 1103.

## SYSTEM #11

MATERIAL: GALVANIZED IRON

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: TOTAL COATING OF UNPAINTED GALVANIZED IRON WITH GENERAL RUSTING OF SURFACE. PRIMARILY ROOFS. AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 7-84: BRUSH-OFF BLAST TO REMOVE LOOSE RUST AND ZINC OXIDE POWDER. SIZE BLASTING AGGREGATE TO PROVIDE A 1.0-MIL SURFACE PROFILE PATTERN. PRIMER COAT MUST BE APPLIED BEFORE ADDITIONAL RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems

| | |
|---|---|
| PRIMER | GALVITE HS<br>B50WZ30<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0-4.5 MILS |
| APPLICATION: | SPRAY |
| FINISH COATS | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COAT |
| DFT: | 2.5-4.0 MILS TOTAL |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

**SYSTEM #11A**

**COLD GALVANIZING**

MATERIAL: GALVANIZED IRON

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: REPAIR AND MAINTENANCE COATING FOR HOT-DIPPED GALVANIZED METAL DAMAGED BY WELDING, BURNING, OR RUSTING DUE TO ABRASION. USE PRODUCT IN ACCORDANCE WITH THE MANUFACTURER'S PRODUCT DATA SHEET. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 11-92: POWER TOOL CLEAN TO BARE METAL WITH VACUUM ATTACHMENTS TO CONTAIN HEAVY METAL PRODUCTS. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting

| | |
|---|---|
| FIRST COAT (SELF-PRIMING): | GALVICON COMPOUND COLD GALVANIZING PRODUCT NO. 1-4853 |
| COATS: | ONE FULL COAT |
| DFT: | 2.0 MILS DFT |
| APPLICATION: | BRUSH, DIP, SPRAY |
| TOP COATS: | DEPENDS ON ENVIRONMENT* |

*NOTE: CONTACT CORROSION CONTROL REPRESENTATIVE: D. R. BASSI, EXT. 7705.

## SYSTEM #12

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE C." HIGH TEMPERATURE EXCEEDING 900°F.

SCOPE: TOTAL COATING OF PREVIOUSLY UNPAINTED STEEL SURFACES SUBJECTED TO TEMPERATURES IN EXCESS OF 900°F. AGGREGATE BLASTING **MUST** BE ACCOMPLISHED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 5-84: BLAST CLEAN TO WHITE METAL. REMOVE ALL TRACES OF CONTAMINANTS; SIZE BLAST AGGREGATE TO PROVIDE A 1.0-1.5-MIL SURFACE PROFILE PATTERN. COATING MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

PRIMER/FINISH COAT:

| | |
|---|---|
| ALTERNATE NO. 1:<br>MAXIMUM TEMPERATURE 800°F* | SILICONE ZINC ALUMINUM ENAMEL<br>NO. 5862, KEELER & LONG |
| COATS: | TWO FULL COATS |
| DFT: | 1.5 MILS/COAT. 3.0 MILS TOTAL. |
| APPLICATION: | SPRAY |
| CURING: | AT AMBIENT TEMPERATURE. |
| ALTERNATE NO. 2:<br>MAXIMUM TEMPERATURE 1200°F | MODIFIED INORGANIC HIGH-TEMP<br>COATING COLOR: BLACK<br>"AMERON NO. 2138," BY AMERON<br>COATINGS DIVISION OR EQUAL. |
| COATS: | TWO FULL COATS |
| DFT: | 10.0 MILS/COAT. 20.0 MILS TOTAL. |
| APPLICATION: | SPRAY ONLY. |
| CURING: | AT AMBIENT TEMPERATURE. |

*NOTE: MANY HIGH-TEMPERATURE COATINGS REQUIRE SPECIAL CURING PROCESSES THAT ARE VERY DIFFICULT TO ACCOMPLISH. EACH CASE MAY REQUIRE INDIVIDUAL CONSIDERATION AS TO SIZE, LOCATION, AND AVAILABILITY OF CURING CAPABILITIES. CONTACT CORROSION CONTROL REPRESENTATIVE: D. R. BASSI, EXT. 7705.

## SYSTEM #12A

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE C." HIGH TEMPERATURE EXCEEDING 600°F. INSIDE USE ONLY.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED STEEL SURFACES SUBJECTED TO TEMPERATURES IN EXCESS OF 600°F. AGGREGATE BLASTING **IS NOT** ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: HAND CLEAN WITH EMULSIFIER AND CLEAN CLOTHS. REMOVE ALL OIL, GREASE, AND DIRT. PROVIDE A CLEAN SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 11-84: POWER TOOL CLEAN TO BARE METAL. REMOVE ALL LOOSE RUST AND FOREIGN MATERIALS. PROVIDE A SOUND SURFACE. SANDBLASTING NOT ALLOWED. USE WITH AEDC PROCEDURE NO. 5 (E 19). [1]

b. Painting

| | |
|---|---|
| PRIMER: | NONE REQUIRED. |
| PAINT SYSTEM (NO FED/IND DESIGNATION): | KEELER & LONG NO. 2807<br>HIGH-HEAT SILICON ALUMINUM ENAMEL OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 1.0-1.5 MILS/COAT. 2.0-3.0 MILS TOTAL. |
| APPLICATION: | SPRAY ONLY. |

CURES AT AMBIENT TEMPERATURE.

NOTE 1: THIS SURFACE PREPARATION IS MARGINAL AT BEST. CHANCES OF A SUCCESSFUL LONG TERM COATING APPLICATION ARE NO BETTER THAN 30%.

ANY HIGH TEMPERATURE SERVICE SHOULD HAVE AN SP-6 COMMERCIAL BLASTED SURFACE AS A MINIMAL REQUIREMENT.

## SYSTEM #12C

## SPECIAL APPLICATION SYSTEM

MATERIAL: CARBON STEEL

ENVIRONMENT: HEAVY-DUTY SERVICE, IRREGULAR SURFACES, HIGH TEMPERATURE (850°F)

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED IRON SURFACES FOR HEAVY-DUTY SERVICE. AGGREGATE BLASTING REQUIRED.* TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIERS. USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 5-84: WHITE METAL BLAST. SIZE BLASTING AGGREGATE TO ACHIEVE A 2.0- TO 3.0-MIL SURFACE PROFILE PATTERN. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| FIRST COAT: | FLAME CONTROL NO. 850, SERIES NO. 22, SAFETY YELLOW, OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 3-5 WET/COAT. 1.5-2.5 DRY/COAT TOTAL 3-5 DFT |
| APPLICATION: | SPRAY. |

*NOTE: DESIGN CRITERIA SHOULD ADDRESS THE TOTAL COATING OF ALL SURFACES OF STRUCTURE BEFORE INSTALLATION.

THERE SHALL BE **NO** SURFACE EXPOSED TO CONTACT WITH THE ELECTROLYTE WHICH CANNOT BE PROPERLY PREPARED AND COATED.

IF SUCH CONDITIONS OCCUR, PLEASE CONSULT WITH THE FOLLOWING CORROSION CONTROL REPRESENTATIVE PRIOR TO INSTALLATION: D. R. BASSI, EXT. 7705.

## SYSTEM #12D

## SPECIAL APPLICATION SYSTEM

MATERIAL: CARBON STEEL (CS)

ENVIRONMENT: HEAVY-DUTY SERVICE, IRREGULAR SURFACES, TEMPERATURES DO NOT EXCEED 350°F

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED RUSTING CARBON STEEL. AGGREGATE BLAST CLEANING IS REQUIRED AND ALLOWED. TEST SURFACES FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. REMOVE ALL OIL, GREASE, GLYCOL, AND OTHER FOREIGN CONTAMINANTS PRIOR TO SANDBLASTING. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6: COMMERCIAL BLAST WITH MINERAL AGGREGATE TO PROVIDE A CLEAN, SOUND SUBSTRATE. REMOVE ALL LOOSE AGGREGATE AND DUST BEFORE APPLYING PRIMER COAT. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting

| | |
|---|---|
| PRIMER: | DTM ACRYLIC PRIMER/FINISH<br>B66W1<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 2.5-5.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COATS: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY |

**CONTINUE ON REVERSE**

SPECIAL NOTE: ALL WELDS, WELD SPLATTER, CUTTING SCARS, SHARP POINTS, AND EDGES SHALL BE GROUND SMOOTH, ROUNDED, CLEANED, AND REPRIMED BEFORE THE TWO TOP COATS ARE APPLIED. ALL EXTERIOR DAMAGE SHALL BE REPAIRED AS PART OF THE WORK OF THIS PROJECT. THE EXTERIOR SURFACE IS LIKE THE INTERIOR SYSTEM EXCEPT FOR COLOR.

*COATING SHALL BE FULLY CURED BEFORE SUBJECTING TO 350°F SERVICE.

## SYSTEM #13

MATERIAL: CARBON STEEL (CS)

ENVIRONMENT: "TYPE M." MODERATE SERVICE, PRIMARILY INTERIOR.

SCOPE: COATING OF LOCATIONS WHERE IT IS NOT POSSIBLE TO OBTAIN GOOD SURFACE PREPARATION BECAUSE OF INACCESSIBILITY OR STRINGENT RESTRICTIONS TO WATER AND AGGREGATE BLASTING PROCEDURES. RUSTING IS OCCURRING, BUT DAMAGE IS NOT SEVERE. TEST SURFACES FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 1-84: SOLVENT CLEAN BY HAND; USE MINERAL SPIRITS AND CLEAN CLOTHS. REMOVE ALL OIL AND GREASE. PROVIDE A CLEAN SUBSTRATE. USE WITH AEDC PROCEDURE NO. 3 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN WHERE POSSIBLE. REMOVE ALL LOOSE RUST, PAINT, AND FOREIGN MATERIALS TO BARE METAL WHERE ACCESSIBLE. USE WITH AEDC PROCEDURE NO. 5 (E 19)

b. Painting

| | |
|---|---|
| PRETREATMENT* | CHEMICAL RUST PASSIVATOR AND CONVERTER "LOX RUST" BY STEELCOTE OR "OSPHO" BY SKYCO. |
| COATS: | ONE FULL COAT |
| DFT: | ALL SURFACES MUST BE COVERED |
| APPLICATION | BY BRUSH, CLOTH, SPRAY, OR ROLLER. FOLLOW MANUFACTURER'S RECOMMENDED PRACTICES. |
| PRIMER: | ACRYLIC ENAMEL PRIMER<br>RUST-NOT 33090<br>GILMAN PAINTS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 MILS DFT |
| APPLICATION: | BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

ALTERNATE NO. 1:

| | |
|---|---|
| FINISH COAT | INDUSTRIAL ACRYLIC GLOSS COATING (DTM)<br>B66-100 GLOSS<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT. |
| APPLICATION: | BRUSH OR ROLLER |

ALTERNATE NO. 2:

| | |
|---|---|
| FINISH COAT: | EPOXY MASTIC COATING<br>B58W101 PURE WHITE PART W<br>B58T104 ULTRA DEEP PART W<br>B58V1 HARDNER PART X<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 6.0-10.0 MILS |
| COLOR: | PURE WHITE AND COLORS |
| APPLICATION: | BRUSH OR ROLLER |

OR

| | |
|---|---|
| FINISH COAT: | EPOXY MASTIC ALUMINUM II<br>B62S100 ALUMINUM PART A<br>B60V100 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-6.0 MILS |
| APPLICATION: | BRUSH OR ROLLER |

*NOTE: APPLY IN AREAS NOT ACCESSIBLE TO SURFACE PREPARATION SYSTEM (SP 3).

*SPECIAL NOTE: THESE ALUMINUM MASTICS PROVIDE A VERY GOOD ALUMINUM FINISH COATING. IF A COLOR SURFACE IS REQUIRED, THEN SPECIFY THE B58 SERIES COATING ABOVE.

## SYSTEM #14

MATERIAL: NEW CONCRETE OR CONCRETE BLOCK.

ENVIRONMENT: "TYPE M." MODERATE SERVICE, EXTERIOR AND INTERIOR.

SCOPE: FILL AND SEAL PRIOR TO TOTAL COATING, UNPAINTED NEW CONCRETE,* AND CONCRETE BLOCK STRUCTURES. TEST SURFACES FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. REMOVE ALL MOLD AND MILDEW WITH A SOLUTION OF ONE PART CHLOROX AND THREE PARTS WATER. ALLOW TO SOAK FOR 10 MINUTES. FLUSH WITH FRESH WATER.

3. SSPC SP 2-84: HAND TOOL CLEAN. REMOVE ALL LOOSE MATERIALS. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 1 (E 19).

4. REPAIR LOOSE OR MISSING MORTAR JOINTS PRIOR TO PAINTING. ALLOW SURFACE TO DRY COMPLETELY.

b. Painting

| | |
|---|---|
| PRIMER: | KEM CATI-COAT HS EPOXY FILLER/SEALER<br>B42W400 OFF WHITE PART A<br>B42V401 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 10-20 MILS TOTAL |
| APPLICATION: | BRUSH OR ROLLER |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

*NOTE: PAINTING OF OLD OR NEW CONCRETE SLABS OR WALLS IS NOT NORMALLY RECOMMENDED. USE THIS SYSTEM ONLY AFTER CAREFUL CONSIDERATION OF MAINTENANCE REQUIREMENTS.

ALTERNATE FINISH COATS MAY BE SUBSTITUTED.

## SYSTEM #14A

MATERIAL: CONCRETE FLOOR REPAIR AND COATING.

ENVIRONMENT: "TYPE C." HEAVY-DUTY CORROSIVE.

SCOPE: REMOVE OLD FLOOR COATING, NEUTRALIZE CONCRETE SURFACE, REPAIR CRACKS AND HOLES IN CONCRETE SLAB, AND RESURFACE WITH A 3-COAT EPOXY SYSTEM. TEST OLD FLOOR FOR LEAD OR HEAVY METALS CONTENT BEFORE REMOVAL.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 6-84: COMMERCIAL BLAST CLEAN. REMOVE ALL OLD HIGH-BUILD COATING FROM FLOOR SURFACES. SCARIFY CONCRETE SUBSTRATE TO A UNIFORM ETCHED TEXTURE. USE WITH AEDC PROCEDURE NO. 6 (E 19).

2. NACE 5-95: WATER BLAST AT 3,000 PSI. NEUTRALIZE OLD CONCRETE WITH WATER AND CAUSTIC SODA IF NECESSARY. CHECK SURFACE pH BEFORE APPLYING PRIMER. USE WITH AEDC PROCEDURE NO. 2 (E 19).

3. REPAIR SHALLOW HOLES AND CRACKS MEASURING 1 INCH OR LESS IN DEPTH WITH S-1 SILICA POWDER BY MASTER BUILDERS.*

4. REPAIR HOLES AND CRACKS MORE THAN 1 INCH IN DEPTH WITH COROCRETE "F" EPOXY FILLER BY MASTER BUILDERS.*

b. Coatings

| | |
|---|---|
| FIRST COAT: | P-380 CONCRETE PRIMER<br>CATALYZED, POLYESTER RESIN<br>MASTER BUILDERS* |
| COATS: | ONE FULL COAT |
| DFT: | 5.0 MILS TOTAL |
| APPLICATION: | BRUSH, ROLLER, CONVENTIONAL SPRAY |
| TOP COATS: | FLAKELINE 252 CATALYZED POLYESTER<br>COATING, MASTER BUILDERS* |
| COATS: | TWO FULL COATS |
| DFT: | 15.0-20.0 MILS/COAT; 35.0-45.0 TOTAL MILS DFT |
| APPLICATION: | SPRAY APPLICATION RECOMMENDED |

*NOTE: APPLICATION WILL BE IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AS STATED ON MASTER BUILDERS (MB) PRODUCT DATA SHEETS.

MB HAS STATED THEY WOULD BE GLAD TO PROVIDE A REPRESENTATIVE ON THE JOB WHILE WORK IS BEING ACCOMPLISHED.

# SYSTEM #14B

MATERIAL: CONCRETE FLOOR REPAIR AND COATING.

ENVIRONMENT: "TYPE C." HEAVY-DUTY CONTAMINATED.

SCOPE: FLOOR IS CONTAMINATED WITH OIL AND GREASE. WASH SURFACE TO REMOVE SURFACE OIL AND GREASE. APPLY COATING TO ACT AS A BOUNDING PRIMER FOR AN EPOXY TOP COATING SYSTEM.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. WASH SURFACE WITH INDUSTRIAL DEGREASING AGENTS AND STEAM CLEANING WITH AN ALKALYNE DETERGENT. FOLLOW WITH THOROUGH RINSING AND DRYING. USE THIS CLEANING PROCESS IN CONJUNCTION WITH AEDC PROCEDURE NO. 2(E19). REMOVE ANY LOOSE MATERIALS.

b. Painting

| | |
|---|---|
| PRIMER: | EPOXY BARRIER COATING<br>P90<br>POLYMER PLASTICS CORP. |
| COATS: | TWO |
| DFT: | 2.0 MILS PER COAT. TOTAL 4.0 MILS |
| APPLICATION: | BRUSH OR ROLLER |
| FINISH COAT: | CONTACT MAINTENANCE ENGINEERING<br>BASSI, 7705. |

FOLLOW MANUFACTURES PRODUCT MATERIALS DATA SHEET FOR TEST AND APPLICATION INSTRUCTIONS.

## SYSTEM #15

MATERIAL: OLD CONCRETE BLOCK.

ENVIRONMENT: "TYPE M." NORMAL SERVICE, EXTERIOR AND INTERIOR.

SCOPE: OLD COATING, PAINT, PLASTER, AND STUCCO ARE BADLY DETERIORATED; MORTAR JOINTS ARE CRACKED. RAIN HAS PENETRATED THE WALLS; MOLD AND MILDEW ARE PRESENT. PAINT HAS BEEN TESTED AND IS POSITIVE FOR LEAD AND HEAVY METAL CONTAMINATION.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. ALLOW TO DRY OR PROCEED WITH STEP 2 IF REQUIRED. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. REMOVE ALL MOLD AND MILDEW WITH A SOLUTION OF ONE PART CHLOROX AND THREE PARTS WATER. ALLOW TO SOAK FOR 10 MINUTES. FLUSH WITH FRESH WATER. USE WITH AEDC PROCEDURE NO. 3 (E 19).

3. SSPC SP 7-84: BRUSH-OFF BLAST CLEAN; REMOVE ALL PAINT, STUCCO, PLASTER, AND LOOSE MATERIAL TO SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 6 (E 19).

4. REPAIR LOOSE OR MISSING MORTAR JOINTS PRIOR TO PAINTING. ALLOW SURFACE TO DRY COMPLETELY.

b. Painting:

| | |
|---|---|
| PRIMER: | KEM CATI-COAT HS EPOXY PRIMER/SEALER<br>B42W400 OFF WHITE PART A<br>B42V401 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 10.0 TO 20.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COAT |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

## SYSTEM #15A

MATERIAL: GYPSUM BOARD.

ENVIRONMENT: "TYPE E." PROTECTED ARCHITECTURAL.

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED OR NEW GYPSUM BOARD. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 2-84: HAND TOOL CLEAN. SAND ALL TAPED AND SPACKLED SURFACES. PROVIDE A SMOOTH, CLEAN SURFACE. USE WITH AEDC PROCEDURE NO. 1 (E 19).

2. SSPC SP 3-84: POWER CLEAN SANDED SURFACES TO REMOVE ALL LOOSE DUST AND SURFACE CONTAMINANTS. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting:

| | |
|---|---|
| PRIMER: | PRO-MAR 200 LATEX WALL PRIMER<br>B28W200 FLAT WHITE<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE COAT |
| DFT: | 1.5-2.0 MILS |
| APPLICATION: | BRUSH OR ROLLER |
| FINISH COATS: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS OR<br>PROMAR 200 ALKYD WALL PAINT<br>B32W201 FLAT<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 1.5-2.0 MILS/COAT |
| APPLICATION: | BRUSH OR ROLLER |

## SYSTEM #16

MATERIAL: NEW WOODEN CONSTRUCTION.

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: TOTAL COATING OF PREVIOUSLY UNPAINTED EXTERIOR PLYWOOD SHEATHING MADE FROM DOUGLAS FIR, PONDEROSA PINE, AND SOUTHERN YELLOW PINE.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 2-84: HAND TOOL CLEAN. REMOVE ALL LOOSE MATERIALS, SAWDUST, DIRT, WOOD SPLINTERS, AND FOREIGN MATERIALS. SAND DOWN ROUGH SURFACES. USE WITH AEDC PROCEDURE NO. 1 (E 19).

2. SET ALL NAILS AND CAULK HOLES WITH BUTYL RUBBER C-180 CAULKING.

b. Painting:

| | |
|---|---|
| PRIMER: | A-100 LATEX EXTERIOR WOOD PRIMER<br>B42W41<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 2.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS OR<br>PRO MAR 100 LATEX PAINT<br>A6 SERIES FLAT<br>SHERWIN-WILLIAMS OR EQUAL |

## SYSTEM #17

MATERIAL: OLD WOODEN STRUCTURES.

ENVIRONMENT: "TYPE M." MODERATE SERVICE.

SCOPE: TOTAL RECOATING OF PREVIOUSLY PAINTED WOODEN SURFACES. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 1,500 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN ALL SURFACES TO REMOVE LOOSE PAINT AND FOREIGN MATERIALS. USE WITH AEDC PROCEDURE NO. 5 (E 19).

3. REPLACE DAMAGED OR DETERIORATING WOOD PRIOR TO PAINTING.

4. REMOVE MOLD AND MILDEW WITH ONE PART CHLOROX TO THREE PARTS WATER. ALLOW TO STAND FOR 10 MINUTES. FLUSH WITH FRESH WATER. ALLOW SURFACE TO DRY COMPLETELY.

b. Painting:

| | |
|---|---|
| PRIMER: | DTM ACRYLIC PRIMER/FINISH<br>B66W1<br>SHERWIN-WILLIAMS |
| COATS: | ONE FULL COAT |
| DFT: | 2.0-5.0 MILS DFT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| | OR |
| PRIMER | DTM BONDING PRIMER<br>B66A50<br>SHERWIN-WILLIAMS OR EQUAL |

**CONTINUE ON REVERSE**

| | |
|---|---|
| COATS: | ONE FULL COAT |
| DFT: | 2.0-5.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLL |
| FINISH COATS | INDUSTRIAL ACRYLIC GLOSS COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |

## SYSTEM #18

MATERIAL: PLANT OPERATING EQUIPMENT*; CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE SERVICE, EXTERIOR.

SCOPE: COATING OF MACHINERY AND CONTROL EQUIPMENT IN THE FACILITY YARD AREAS. WATER BLASTING ALLOWED. EQUIPMENT SURFACE TEMPERATURE DOES NOT EXCEED 200º DURING OPERATION. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. WHERE HEAVY DEPOSITS OF GREASE, OIL, AND DIRT PERSIST AFTER WATER BLASTING, REMOVE BY HAND AND CLEAN WITH MINERAL SPIRITS AND CLEAN CLOTHS. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 11-84: POWER TOOL CLEAN TO BARE METAL; REMOVE ALL LOOSE PAINT AND RUST. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting:

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY<br>B62HW6 BEIGE PART A<br>B58VW2 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS DFT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

ALTERNATE NO. 1:

| | |
|---|---|
| FINISH COATS | INDUSTRIAL ACRYLIC GLOSS COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

*ROTATING EQUIPMENT, GEAR REDUCERS, PUMPS, COMPRESSORS, MILLING MACHINES, ETC.

## SYSTEM #19

MATERIAL: PLANT OPERATING EQUIPMENT*; CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE SERVICE, INTERIOR.

SCOPE: COATING OF MACHINERY, CONTROL EQUIPMENT, AND SUPPORT UTILITIES WITHIN THE FACILITIES. UTILITIES TEMPERATURES MAY REACH 400°F. WATER BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 2,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. ALL OIL AND GREASE MUST BE REMOVED BEFORE PAINTING. USE MINERAL SPIRITS AND CLEAN CLOTHS TO REMOVE ANY MATERIALS NOT REMOVED BY WATER BLASTING. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 11-84: POWER TOOL CLEAN TO BARE METAL; REMOVE ALL LOOSE PAINT AND RUST. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting:

ALTERNATE NO. 1 (MAX. TEMP. 200°)

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 BEIGE PART A<br>B58VW2 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | BRUSH |
| FINISH COATS | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS |
| APPLICATION: | SPRAY BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

ALTERNATE NO. 2 (MAX. TEMP. 400°)

| | |
|---|---|
| PRIMER: | KEELER & LONG PRIMER NO. 9584 POLYSILICONE OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 2.0 MILS TOTAL |
| APPLICATION: | BRUSH |
| FINISH COAT: | P-SERIES POLYSILICONE ENAMEL KEELER & LONG OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 1.8-2.3 MILS/COAT. 5.6-6.6 MILS TOTAL |
| APPLICATION: | BRUSH |

## SYSTEM #20

MATERIAL: PLANT OPERATING EQUIPMENT, CARBON STEEL, NEW INSTALLATIONS*

ENVIRONMENT: "TYPE M." MODERATE SERVICE, INTERIOR.

SCOPE: COATING OF EQUIPMENT,** MACHINERY, AND SUPPORT UTILITIES WITHIN FACILITY STRUCTURES. BLASTING AND PRIMING REQUIRED PRIOR TO INSTALLATION. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 2,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. ALL OIL, GREASE, AND FOREIGN MATERIALS SHALL BE REMOVED PRIOR TO SANDBLASTING. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES TO CLEAN, BARE METAL. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL SURFACE PROFILE PATTERN. FIRST PRIME COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting:

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 BEIGE PART A<br>B58VW2 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS DFT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

*SPECIAL NOTE: ALL WELDS, WELD SPLATTER, CUTTING SCARS, SHARP POINTS, AND EDGES SHALL BE GROUND OFF AND A SMOOTH, CLEAN, SOUND SURFACE PROVIDED AFTER INSTALLATION IS COMPLETE. COATING APPLICATION OF THESE AREAS SHALL COMPLY WITH THE SYSTEMS PROVIDED ABOVE.

**FOR ALTERNATE, SEE SYSTEM 12B.

## SYSTEM #21

MATERIAL: ALUMINUM

ENVIRONMENT: "TYPE M." MODERATE SERVICE, INTERIOR AND EXTERIOR.

SCOPE: COATING OF PIPING, CONDUIT, PANELS, AND SUPPORT STRUCTURES. ALUMINUM IS NOT NORMALLY COATED AND SHOULD NOT BE EXCEPT WHEN SPECIAL CONDITIONS REQUIRE IT. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. ALL OIL, GREASE, AND FOREIGN MATERIALS SHALL BE REMOVED. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

b. Painting:

| | |
|---|---|
| PRIMER/FINISH: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5-4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH, OR ROLLER |

NOTE: NO ADDITIONAL PRIMER COAT IS REQUIRED.

**SYSTEM #22**
**TANKS**

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." MODERATE HUMIDITY AND CHEMICAL FUMES.

SCOPE: FULL COATING OF PREVIOUSLY PAINTED OR BADLY DETERIORATED IRON SURFACES. AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL SURFACE PROFILE PATTERN. PRIMER COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems:

| | |
|---|---|
| PRIMER: | ZINC CLAD II ETHYL SILICATE, INORGANIC<br>ZINC-RICH COATING<br>B69V3 BINDER PART E<br>B69V11 ZINC DUST PART F<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 - 5.0 MILS |
| APPLICATION: | SPRAY |

INTERMEDIATE COAT:

| | |
|---|---|
| PRIMER: | RECOATABLE EPOXY PRIMER<br>B67A5 GRAY PART G<br>B67H5 TAN PART G<br>B67R5 RED OXIDE PART G<br>B67V5 HARDNER PART H<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0 - 6.0 MILS |
| APPLICATION: | SPRAY |

**CONTINUE ON REVERSE**

FINISH COAT:

HI-SOLIDS POLYURETHANE ENAMEL
TYPE I, CLASS II
B65-300 SERIES PART S
B60V30 HARDNER PART T
SHERWIN-WILLIAMS OR EQUAL

| | |
|---|---|
| COATS: | ONE FULL COAT |
| DFT: | 3.0 - 4.0 MILS |
| APPLICATION: | SPRAY |

ALTERNATE NO. 1:

PRIMER:
RECOATABLE EPOXY PRIMER
B67A5 GRAY PART G
B67H5 TAN PART G
B67R5 RED OXIDE PART G
B67V5 HARDNER PART H
SHERWIN-WILLIAMS OR EQUAL

FINISH COATS:
INDUSTRIAL ACRYLIC COATING (DTM)
B66-100 GLOSS OR
B66-200 SEMI-GLOSS
SHERWIN-WILLIAMS OR EQUAL

| | |
|---|---|
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS/COAT |
| APPLICATION: | SPRAY |

**SYSTEM #22A**
**TANKS - INTERIOR**

MATERIAL: CARBON STEEL

ENVIRONMENT: CONTAINS TRICHLOROETHYLENE

SCOPE: TOTAL COATING OF NEW OR OLD TANK INTERIORS. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST. APPLY EMULSIFIER AND WATER AT 1,500 PSI; FLUSH WITH CLEAR WATER. RINSE AT 5,000 PSI. PROVIDE A CLEAN SURFACE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 10-84: NEAR WHITE METAL BLAST ALL INTERIOR SURFACES TO BARE METAL. SIZE AGGREGATE TO PROVIDE A 1.5-2.0-MIL PROFILE PATTERN. FIRST COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. DO NOT USE SILICA SAND AGGREGATE. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems:

| | |
|---|---|
| FIRST COAT: | AMERCOAT NO. 346 |
| DFT: | 4.0 MILS DFT |
| COLOR: | GRAY |
| APPLICATION: | SPRAY |
| INTERMEDIATE COAT: | AMERCOAT NO. 346 |
| DFT: | 4.0 MILS DFT |
| COLOR: | WHITE |
| APPLICATION: | SPRAY |
| FINISH COAT: | AMERCOAT NO. 346 |
| DFT: | 4.0 MILS DFT; 12.0 MILS TOTAL SYSTEM DFT |
| COLOR: | GRAY |
| APPLICATION: | SPRAY |

**SYSTEM #22B**
**TANKS - INTERIOR**

MATERIAL: CARBON STEEL

ENVIRONMENT: ALIPHATIC SOLVENTS (FUEL)

SCOPE: TOTAL COATING OF NEW OR OLD TANK INTERIORS. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST. APPLY EMULSIFIER AND WATER AT 1,500 PSI; FLUSH WITH CLEAR WATER. RINSE AT 5,000 PSI. PROVIDE A CLEAN SURFACE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 5-84: WHITE METAL BLAST ALL INTERIOR SURFACES TO BARE METAL. SIZE AGGREGATE TO PROVIDE A 1.5-2.0-MIL PROFILE PATTERN. FIRST COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems:

| | |
|---|---|
| FIRST COAT: SELF-PRIMING | MOBIL SERIES 76 EPOXY |
| DFT: | 8.0 MILS DFT |
| COLOR: | GRAY |
| APPLICATION: | SPRAY |
| INTERMEDIATE COAT: | NONE |
| FINISH COAT: | MOBIL SERIES 76 EPOXY |
| DFT: | 8.0 MILS DFT; 16.0 MILS TOTAL SYSTEM DFT |
| COLOR: | WHITE |
| APPLICATION: | SPRAY |

## SYSTEM #22C

### TANKS - INTERIOR

MATERIAL: CARBON STEEL

ENVIRONMENT: POTABLE AND RAW WATER

SCOPE: CLEANING AND COATING OF TANK INTERIOR. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST. APPLY EMULSIFIER AND WATER AT 50 PSI; RINSE WITH CLEAR WATER AT 5,000 PSI. PROVIDE A CLEAN SURFACE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 5-84: WHITE METAL BLAST ALL INTERIOR SURFACES TO BARE WHITE METAL. SIZE BLAST AGGREGATE TO PROVIDE A 1.5-2.0-MIL PROFILE PATTERN. FIRST COAT OF PAINT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems:

| | | |
|---|---|---|
| FIRST COAT: | | HI-SOLIDS EPOXY-POLYAMIDE |
| PRIMER | FORMULA NO. 150 | GREEN |
| DFT: | | 6.0 MILS DFT |
| APPLICATION: | | SPRAY |
| INTERMEDIATE COAT: | | HI-SOLIDS EPOXY-POLYAMIDE |
| | FORMULA NO. 151 | HAZE GRAY |
| DFT: | | 6.0 MILS DFT |
| APPLICATION: | | SPRAY |
| FINISH COAT: | | HI-SOLIDS EPOXY-POLYAMIDE |
| | FORMULA NO. 152 | WHITE |
| DFT: | | 6.0 MILS DFT<br>TOTAL MINIMUM DFT 18.0 MILS |
| APPLICATION: | | SPRAY |

PINHOLE DETECTION TESTS SHALL BE PERFORMED AFTER APPLICATION OF EACH COAT OF PAINT AND SPOT REPAIRS MADE BEFORE SUBSEQUENT COAT IS APPLIED.

## SYSTEM #23

## SHOP MACHINERY

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M." NORMAL INDUSTRIAL ATMOSPHERE.

SCOPE: CLEANING, PRIMING, AND PAINTING OF SHOP EQUIPMENT. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 1-84: HAND CLEAN WITH MINERAL SPIRITS OR "PRIME" SOLVENTS AND CLEAN CLOTHS. REMOVE ALL OIL, GREASE, AND METAL PARTICLES. USE WITH AEDC PROCEDURE NO. 3 (E 19).

2. SSPC SP 11-84: POWER TOOL CLEAN TO BEAR METAL. REMOVE ALL LOOSE PAINT, RUST, AND FOREIGN MATERIALS TO BARE METAL. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting:

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 – BEIGE PART A<br>B58VW2 – HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0-8.0 MILS |
| APPLICATION: | BRUSH OR ROLLER |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS/COAT |
| COLOR: | CREAM TC-31 + ONE EXTRA OZ OF OCHER |
| APPLICATION: | BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

ALTERNATE #1

| | |
|---|---|
| FINISH COAT: | TILE-CLAD HIGH SOLIDS<br>B62Z SERIES PART A<br>B60VZ 70 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS/COAT |
| COLOR: | SAME AS ABOVE |
| APPLICATION: | BRUSH OR ROLLER |

## SYSTEM #24

## STORAGE OF STEEL STOCK

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M," NORMAL INDUSTRIAL ATMOSPHERE, EXTERIOR STORAGE

SCOPE: PRESERVATION OF STORED FERROUS MATERIALS. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI. REMOVE ALL DIRT, MUD, OR FOREIGN MATERIALS THAT PREVENT THE SURFACES FROM BEING COATED. USE WITH AEDC PROCEDURE NO. 2 (E 19).

b. Painting:

| | |
|---|---|
| RUST INHIBITOR: GRADES 1 & 4 | CHESTERTON, HEAVY-DUTY RUST GUARD PRODUCT NO. 87707 55-GALLON DRUM (445 LBS) OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | * |
| APPLICATION: | SPRAY OR BRUSH |

*NOTE: FOLLOW MANUFACTURER'S RECOMMENDED PRACTICES PER PRODUCTS DATA SHEET.

## SYSTEM #25

### INTERIOR TEST CELLS TO 300°F

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M," MODERATE SERVICE

SCOPE: FULL COATING OF CONTAMINATED SURFACES OF PREVIOUSLY UNPAINTED AND PAINTED INTERIOR TEST CELL WALLS. AGGREGATE BLASTING AND WATER BLASTING ARE NOT ALLOWED. TEMPERATURES MAY REACH 300°F. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 1-84: HAND CLEAN WITH DETERGENTS, WATER, AND CLEAN CLOTHS. REMOVE ALL OIL AND GREASE. USE WITH AEDC PROCEDURE NO. 3 (E 19).

2. SSPC SP 11-84: POWER TOOL CLEAN TO BARE METAL; REMOVE ALL LOOSE PAINT, RUST, DIRT, AND FOREIGN MATERIALS TO A SOUND, CLEAN SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting Systems:

FIRST COAT (IF UNPAINTED):

| | |
|---|---|
| PRIMER: | SURFACE TOLERANT EPOXY PRIMER<br>B62HW6 BEIGE PART A<br>B58VW2 HARDNER PART B<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 4.0 - MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>SERIES B66-100 GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

## SYSTEM #25A

### INTERIOR TEST CELLS TO 700°F

MATERIAL: CARBON STEEL

ENVIRONMENT: HEAVY-DUTY SERVICE, TEMPERATURES TO 700°F

SCOPE: FULL COATING OF CONTAMINATED, DETERIORATING SURFACES OF PAINTED AND UNPAINTED TEST CELL WALLS AND COMPONENTS. AGGREGATE BLASTING IS **NOT** ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 11-87T: POWER TOOL CLEAN TO BARE METAL. REPLACES SANDBLASTING WHEN RESTRICTED. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting Systems:

FIRST COAT (SELF-PRIMING): KEELER & LONG NO. 2807
HIGH-HEAT SILICON ALUMINUM ENAMEL

| | |
|---|---|
| COATS: | TWO FULL COATS |
| DFT: | 1.0-1.5 MILS/COAT. 2.0-3.0 MILS TOTAL. |
| APPLICATION: | SPRAY PREFERRED |

CURES AT AMBIENT TEMPERATURE.

SURFACES MUST BE CLEAN!

*NOTE: IT IS VERY LIKELY THAT ANY HIGH TEMPERATURE COATING APPLIED TO A SURFACE THAT HAS NOT BEEN BLASTED TO A MINIMUM SP-6, COMMERCIAL BLASTED SURFACE WILL FAIL WITHIN ONE YEAR OF SERVICE.

## SYSTEM #25B

## INTERIOR TEST CELLS TO 300°F

MATERIAL: CARBON STEEL

ENVIRONMENT: "TYPE M," MODERATE SERVICE

SCOPE: TOTAL COATING OF PREVIOUSLY PAINTED, UNPAINTED, OR NEW INSTALLATIONS. AGGREGATE BLASTING ALLOWED. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-84: COMMERCIAL BLAST ALL IRON SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. FIRST COAT MUST BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. Painting Systems:

FIRST COAT (IF UNPAINTED):

| | |
|---|---|
| PRIMER/FINISH: | HIGH PERFORMANCE ACRYLIC<br>B66WW300<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS/CT. TOTAL: 5.0 - 8.0 MILS |
| COLOR: | ULTRA WHITE ONLY |
| APPLICATION: | SPRAY, BRUSH, ROLLER |

## SYSTEM #26

## BURIED PIPE

MATERIAL: CARBON STEEL

ENVIRONMENT: BURIED PIPE PLACED ON AND BACKFILLED WITH CLEAN SAND.

SCOPE: TOTAL COATING OF UNPAINTED CARBON STEEL PIPE, COUPLINGS, FLANGES, AND FITTINGS. TEST FOR LEAD AND HEAVY METAL CONTENTS.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. SSPC SP 1-84: SOLVENT CLEAN TO REMOVE ALL OIL, GREASE, AND NON-WATER-SOLUBLE CONTAMINATION. USE WITH AEDC PROCEDURE NO. 3 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN TO REMOVE ALL LOOSE RUST, SCALE, AND HEAVY DEPOSITS OF DIRT AND FOREIGN MATERIALS. PROVIDE A CLEAN, SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. Painting Systems:

| | |
|---|---|
| PRIMER: | TAPECOAT (TC) COLDPRIME PRIMER; APPLY PER MANUFACTURER'S INSTRUCTIONS. |
| c. Coated Tape: | TAPECOAT CT. APPLY TAPE OVER TACKY PRIMER PER MANUFACTURER'S INSTRUCTIONS. |

**SOURCES**

TAPECOAT COMPANY
PO BOX 631
EVANSTON, ILLINOIS 60204
(708) 866-8500

**SUPPLIERS:**

GENERAL CORROSION SERVICES OR EQUAL
1-404-939-5700

HARCO CORPORATION OR EQUAL
1-404-981-3150

## SYSTEM #27

MATERIAL: CONCRETE

ENVIRONMENT: "TYPE A." JET FUEL TANK CONTAINMENT STRUCTURES.

SCOPE: COATING OF CONCRETE SURFACES WITH A THREE-COAT EPOXY SYSTEM FOR PREVENTION OF FUEL SPILLS FROM ENTERING THE ENVIRONMENT. COATINGS APPLICATION IS CONTINGENT UPON THE USE OF APPROPRIATE CONSTRUCTION JOINT CAULKING SYSTEMS. TEST FOR LEAD AND HEAVY METAL CONTENT.

PROCEDURE/SPECIFICATION:

a. Surface Preparation

1. PREPARE SURFACE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PRODUCT AND SAFETY DATA SHEETS.

2. MIX PRODUCTS AS DIRECTED BY MANUFACTURER. MAKE NO PRODUCT SUBSTITUTIONS. APPLY AS SPECIFIED ON PRODUCT DATA SHEET.

b. Painting

| | |
|---|---|
| PRIMER COAT: | ARMOR SEAL 1000 SERIES<br>SHERWIN-WILLIAMS (S/W)<br>B67Q1000 PART A<br>B60VQ1001 - HARDENER (COLORS) PART B<br>B60VQ1000 - HARDENER (CLEAR) PART C |
| INTERMEDIATE COAT: | ARMOR SEAL II S/W<br>B65Q SERIES PART A<br>B60QV110 HARDENER PART B |
| TOP COAT: | ARMOR SEAL II S/W<br>B65Q SERIES PART A<br>B60QV110 HARDENER PART B<br>ADD 1/2 POUND OF AGGREGATE PER 2-GALLON KIT FOR NON-SLIP SURFACES. PART C |
| COLORS: | CLEAR, HAZE GRAY, WHITE, AND SANDSTONE. |

ALL THREE COATS ARE SHERWIN-WILLIAMS OR EQUAL

**CONTINUE ON REVERSE**

THESE PRODUCTS PROVIDE EXCELLENT PROTECTION AGAINST SEVERE CONTAMINATION FROM:

- ALIPHATIC AND AROMATIC HYDROCARBON SOLVENTS.
- ACID AND ALKALI SALT SOLUTIONS.
- FRESH AND SALT WATER.
- GLYCOL ETHERS, ALCOHOLS, AND FORMALDEHYDE.

IT IS VERY IMPORTANT THAT THESE APPLICATIONS BE ACCOMPLISHED BY EXPERIENCED CONTRACTORS WITH ASSISTANCE FROM THE FIELD REPRESENTATIVE OF THE MANUFACTURER WHILE WORK IS BEING PERFORMED.

CONTACT D. R. BASSI, EXT 7705, FOR ADDITIONAL INFORMATION.

## SYSTEM #28

**MATERIAL**: CARBON STEEL

**ENVIRONMENT**: "TYPE A." COLD, 20°F WITH HIGH HUMIDITY.

**SCOPE**: TOTAL COATING OF PREVIOUSLY PAINTED OR UNPAINTED CARBON STEEL IN COLD, DAMP WEATHER CONDITIONS. TEST FOR LEAD AND HEAVY METAL CONTENT.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. NACE STD 5-95: WATER BLAST AT 5,000 PSI WITH EMULSIFIER; USE CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 6-88: COMMERCIAL BLAST ALL SURFACES. SIZE AGGREGATE TO PROVIDE A 1.0-1.5-MIL PROFILE PATTERN. PRIMER COAT SHALL BE APPLIED BEFORE FLASH RUSTING OCCURS. USE WITH AEDC PROCEDURE NO. 6 (E 19).

b. PAINTING

| | |
|---|---|
| PRIMER: | WASSER MC-ZINC, ZINC-RICH PRIMER<br>SINGLE COMPONENTS MOISTURE<br>CURING URETHANE<br>WASSER HI-TECH COATINGS |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 MILS |
| COLOR: | GRAY |
| APPLICATION: | SPRAY |
| FINISH COATS: | WASSER MC-LUSTER GLOSS<br>SINGLE COMPONENT MOISTURE-CURING<br>ALIPHATIC URETHANE<br>WASSER HI-TECH COATINGS |
| COATS: | TWO FULL COATS |
| DFT: | 3.0 MILS/COAT |
| COLOR: | WIDE RANGE |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

**CONTINUE ON REVERSE**

ALTERNATE #1

| | |
|---|---|
| PRIMER: | COROTHANE I ZINC PRIMER |
| FINISH COAT: | COROTHANE I ALIPHATIC COAT |

THESE ARE TWO COMPONENT COATINGS BY SHERWIN-WILLIAMS.

THE WASSER PRODUCTS ARE SUPERIOR. CONTACT BASSI AT 7705 FOR ADDITIONAL INFORMATION.

**SYSTEM #28A**
**GALLARY & VAULT PIPING**

**MATERIAL**: CARBON STEEL

**ENVIRONMENT**: "TYPE C." SEVER CORROSIVE CONDITION DUE TO CONSTANT CONDENSATION ON COLD SURFACES.

**SCOPE**: CLEANING AND PAINTING OF PIPING LOCATED IN UNDERGROUNDS VAULTS, MANHOLES AND PIPE GALLERIES UNDER THE PUMPING STATIONS. WATER BLASTING ALLOWED BUT GRIT BLASTING NOT PRACTICAL TEST FOR LEAD AND HEAVY METALS.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. NACE 5-95: WATER BLAST AT 3,000 PSI WITH "50-PRO" CLEANING SOLVENT. USE CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP11-84: POWER TOOL CLEAN TO BARE METAL: PROVIDE A CLEAN SOUND SUBSTRATE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. PAINTING SYSTEM

| | |
|---|---|
| PRIMER: | WASSER MC-MIO-ZINC<br>WASSER COATINGS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 3.0 MILS |
| COLOR: | GREEN GRAY |
| APPLICATION: | SPRAY OR BRUSH |
| TYPE: | SINGLE COMPONENT |
| FINISH: | WASSER MC-MIOMASTIC<br>WASSER COATINGS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 2.0 - 3.0 MILS |
| COLOR: | F6493 STANDARD GRAY OR OTHER |
| FINISH: | SEMI-GLOSS |
| APPLICATION: | SPRAY OR BRUSH |
| TYPE: | SINGLE COMPONENT |

THESE COATINGS ARE MOISTURE CURED ALIPHATIC URETHANES. HIGH SOLIDS, SINGLE COMPONENT, VOC COMPLIANT. CAN BE APPLIED AT BELOW FREEZING TEMPERATURES AND 99% HUMIDITY.

# SYSTEM #29

**MATERIAL**: NON-SLIP FLOOR SURFACING

**ENVIRONMENT**: CONCRETE FLOORS, INTERIOR AND EXTERIOR, LIGHT TO HEAVY-DUTY SERVICE

**SCOPE**: PRIMERS AND TOP COATINGS FOR STEEL, CONCRETE, WOOD, TILE, ASPHALT, AND OTHER SURFACES. TEST FOR LEAD AND HEAVY METAL CONTENT.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

FOLLOW MANUFACTURER'S MATERIAL DATA SHEETS FOR CLEANING OF SPECIFIED FLOORING MATERIALS AND APPLICATION OF PRIMER AND ANTI-SLIP COATINGS.*

b. PAINTING

| | |
|---|---|
| PRIMERS (DEPENDENT ON TYPE OF FLOOR MATERIAL): | PS-100 PRIMER/SEALER<br>AP-100 PRIMER<br>EP-100 PRIMER<br>MS-5C PRIMER<br>GLIDDEN PAINTS |
| FINISH COATS: | AS-75<br>AS-150<br>AS-175<br>AS-250<br>AS-550<br>AS-2500<br>GLIDDEN PAINTS |
| COLORS: | AS REQUIRED |

*MANUFACTURER'S TECHNICAL REPRESENTATIVE CAN BE REQUESTED FOR ASSISTANCE IN APPLICATION. CALL D. R. BASSI (EXT. 7705).

## SYSTEM #30

**MATERIAL**: FACTORY-PAINTED METAL BUILDINGS AND STAINLESS STEEL SURFACES

**ENVIRONMENT**: "TYPE M." MODERATE ATMOSPHERIC CONDITIONS.

**SCOPE**: TOTAL COATING OF PREVIOUSLY PAINTED METAL BUILDINGS IN EXCELLENT CONDITION. TEST FOR LEAD AND HEAVY METAL CONTENT.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. NACE STD 5-95: WATER BLAST AT 3,000 PSI WITH EMULSIFIER; USE A CLEAR WATER RINSE. USE WITH AEDC PROCEDURE NO. 2 (E 19).

2. SSPC SP 3-84: POWER TOOL CLEAN RUSTED AND CONTAMINATED AREAS. PROVIDE A CLEAN, SOUND SURFACE. USE WITH AEDC PROCEDURE NO. 5 (E 19).

b. PAINTING

| | |
|---|---|
| PRIMER: | DTM BONDING PRIMER<br>B66A50<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | ONE FULL COAT |
| DFT: | 2.5 MILS DFT |
| APPLICATION: | BRUSH, ROLLER, SPRAY |
| FINISH COAT: | INDUSTRIAL ACRYLIC COATING (DTM)<br>B66-100 GLOSS OR<br>B66-200 SEMI-GLOSS<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | TWO FULL COATS |
| DFT: | 2.5 - 4.0 MILS/COAT |
| APPLICATION: | SPRAY, BRUSH OR ROLLER |

## SYSTEM #31

**MATERIAL**: ALUMINUM SIGN BLANKS.

**ENVIRONMENT**: "TYPE M." MODERATE SERVICE, PRIMARILY INTERIOR.

**SCOPE**: COATING OF ALUMINUM SIGN BLANKS USED ON COMPUTER AND CONTROL ROOM. THERE ARE NO HEAVY METALS ASSOCIATED WITH THIS PROCESS.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. SSPC-SP 2-95: HAND TOOL CLEAN WITH SAND PAPER TO PROVIDE A MECHANICAL BONDING SURFACE FOR PRIMER.

2. SSPC SP 1-95: HAND CLEAN WITH TEXOL EP. REMOVE ALL METAL DUST OIL AND CONTAMINATING MATERIALS.

b. PAINTING

| | |
|---|---|
| PRIMER: | DTM BONDING PRIMER<br>B66A50<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | AS REQUIRED |
| DFT: | 2.0 MILS DFT PER COAT |
| APPLICATION: | SPRAY |
| FINISH COAT: | SHER-WOOD KEM AQUA LACQUER<br>MRE-T75-F-527* |
| COATS: | AS REQUIRED |
| DFT: | 0.8 TO 1.1 MILS DFT PER COAT |
| APPLICATION: | SPRAY |
| COLOR: | CLEAR |

THIS IS A PAINT SHOP SPECIAL COATING SYSTEM.

*MEDIUM RUB EFFECT (MRE)

## SYSTEM #32

**MATERIAL**: REFINISH WOODEN FURNITURE.

**ENVIRONMENT**: "TYPE M." INTERIOR ADMINISTRATIVE.

**SCOPE**: REFINISH WOODEN FURNITURE BY STRIPPING OLD COATINGS, CLEANING AND REPAIRING DAMAGED SURFACES AND RECOATING.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. SSPC-SP1-95: SOLVENT STRIP CLEAN OLD COATING USING TEXOL EP PAINT STRIPPER, REMOVE ALL OLD COATING MATERIAL.

2. SSPC SP2-95: SAND, FILL AND STAIN TO PROVIDE A BONDING SURFACE. REMOVE DUST. PROVIDE A CLEAN SOUND SURFACE.

b. PAINTING

| | |
|---|---|
| FINISH COAT: | SHER-WOOD KEM AQUA LACQUER<br>MRE T-75-F-527*<br>SHERWIN-WILLIAMS OR EQUAL |
| COATS: | FIVE TO 10 |
| DFT: | 0.5 TO 0.8 PER COAT AS REQUIRED |
| APPLICATION: | SPRAY ONLY |

*NOTE: AVAILABLE FINISHES

| | |
|---|---|
| GLOSS: T75-G-525 | GLOSS RUB EFFECT |
| BRE: T75-F-526 | BRIGHT RUB EFFECT |
| MRE: T75-F-527 | MEDIUM RUB EFFECT |
| DRE: T75-F-528 | DULL RUB EFFECT |

## SYSTEM #33

**MATERIAL**: COOLING WATER TOWERS FAN BLADES

**ENVIRONMENT**: WET WITH CHANGING TEMPERATURES AND HIGH VELOCITY AIR FLOW

**SCOPE**: CLEAN, PRIME AND PAINT NEW FIBERGLASS FAN BLADES

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. USE AIR BLOW DOWN TO REMOVE ALL DUST AND FOREIGH MATERIALS.

2. SSPC SP 1-94: HAND CLEAN WITH TEXOL EP, AND WHITE PAPER TOWELS. PROVIDE A CLEAN SOUND SURFACE FOR PAINTING.

b. PAINTING

| | |
|---|---|
| PRIMER: | EPOXY PRIMER- RESIN, DP 50.<br>CATALYST, DP 402]<br>MIXING RATIO IS 1 TO 1 |
| COATS: | ONE FULL COAT |
| DFT: | PER MANUFACTURERS INSTRUCTIONS |
| APPLICATION: | SPRAY<br>BY PITTSBURG PAINT CO. OR EQUAL<br>RECOAT IN 30 MIN; FULL CURE IN 48 HOURS |
| FINISH COAT: | CONCEPT ACRYLIC URETHANE, 2 PARTS<br>DU5- HARDNER, ONE PART<br>DT 870 – REDUCER, ONE PART |
| COATS: | TWO WET COATS |
| DFT: | PER MANUFACTURERS INSTRUCTIONS |
| APPLICATION: | SPRAY |
| COLOR: | DCC-35538<br>BY PITTSBURG PAINT CO. OR EQUAL |
| CLEAN-UP: | USE PPG LACQUER THINNER DTL 10, DURACRYL |

NOTE: THIS MATERIAL IS ORDERED OUT OF MCMINNVILLE, TN PPG DISTRIBUTOR.

## SYSTEM #34

**MATERIAL**: REPAIR BITUMEN DRIPPAGE STAINS

**ENVIRONMENT**: "TYPE M". MODERATE ATMOSPHERIC CONDITIONS.

**SCOPE**: REMOVAL OF HEAVY RUNS OF COAL TAR AND ASPHALT MATERIALS ON ROOFING FLASHING AND WALLS. WORK ALSO REPAIRS STAINS LEFT AFTER EXCESS MATERIAL IS REMOVED.

**PROCEDURE/SPECIFICATION**:

a. SURFACE PREPARATION

1. NACE STD 5-95. WATER BLAST AT 3,000 PSI WITH EMULSIFIER: USE CLEAR WATER RINSE. PROVIDE A CLEAN, SOUND SURFACE. USE WITH AEDC PROCEDURE NO. 5 (E-19)

2. REMOVE EXCESS TAR AND ASPHALT DRAPES AND DRIPPAGE FROM METAL AND CONCRETE MASONRY AND CONCRETE SURFACES. PROVIDE A COLD SURFACE WITH LIQUID NITROGEN, $CO_2$ GAS, DRY ICE OR COLD WEATHER. REMOVE BRITTLE MATERIAL WITH CHIPPING TOOLS. SURFACE STAINS WILL BE COVERED AND SEALED WITH MATERIAL LISTED BELOW IN "PAINTING" SECTION.

b. PAINTING

| | |
|---|---|
| PRIMER: | WHITE PIGMENTED SHELLAC STAIN BLOCKER |
| FED. SPEC: | TT-P-652 |
| VOC: | 4.6 #/CAL; 550 G./LT. |
| COVERAGE: | POROUS SURFACE 400 SQ. FT. PER GAL.<br>SMOOTH SURFACE 500 SQ. FT. PER GAL. |
| APPLICATION: | BRUSH |
| TOP COATING: | MAY BE TOP COATED WITH WATER BASED OR SOLVENT BASED COATINGS |